

DERWENT-ACC- 2003-609185  
NO:

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WEEK:

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TITLE: Tungsten carbide base hard alloy used for producing cutting tools contains (titanium, tungsten, tantalum, niobium, zirconium) carbide solid solution

INVENTOR: XU, L

PATENT-ASSIGNEE: ZHUZHOU HARD ALLOY GROUP CO LTD[ZHUZN]

PRIORITY-DATA: 2002CN-0139684 (October 10, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1425787 A	June 25, 2003	N/A	000	C22C 029/08

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
CN 1425787A	N/A	2002CN-0139684	October 10, 2002

INT-CL (IPC): C22C029/08

ABSTRACTED-PUB-NO: CN 1425787A

BASIC-ABSTRACT:

NOVELTY - Tungsten carbide base hard alloy contains (titanium, tungsten, tantalum, niobium, zirconium) carbide solid solution. Substituting tantalum partially with niobium and zirconium with relatively abundant source and low cost makes the alloy lower in production cost. In addition, niobium carbide can form fine crystal grains, zirconium carbide can raise the high temperature performance of the alloy, and substituting tantalum partially with niobium and zirconium will not lower the performance of the alloy. The alloy is suitable for producing cutting tools.

CHOSEN-DRAWING: Dwg.0/0

DERWENT-CLASS: L02 M26

CPI-CODES: L02-F03; L02-H02A; M26-B12; M26-B12T;

**Basic Abstract Text - ABTX (1):**

NOVELTY - Tungsten carbide base hard alloy contains (titanium, tungsten, tantalum, niobium, zirconium) carbide solid solution. Substituting tantalum partially with niobium and zirconium with relatively abundant source and low cost makes the alloy lower in production cost. In addition, niobium carbide can form fine crystal grains, zirconium carbide can raise the high temperature performance of the alloy, and substituting tantalum partially with niobium and zirconium will not lower the performance of the alloy. The alloy is suitable for producing cutting tools.

**Title - TIX (1):**

Tungsten carbide base hard alloy used for producing cutting tools contains (titanium, tungsten, tantalum, niobium, zirconium) carbide solid solution

**Standard Title Terms - TTX (1):**

TUNGSTEN CARBIDE BASE HARD ALLOY PRODUCE CUT TOOL CONTAIN TITANIUM TUNGSTEN TANTALUM NIOBIUM ZIRCONIUM CARBIDE SOLID SOLUTION